IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claim 26 in accordance with the following:

1. (original) A method of speech processing, comprising:

mapping input variables with different weights onto at least one output variable produced by said mapping;

comparing the at least one output variable produced from said mapping with a desired output variable to be produced from said mapping to obtain a comparison result; and

calculating a change rule for said mapping based on the comparison result and to reduce the weights of selected input variables having little influence on the at least one output variable.

2. (original) The method as claimed in claim 1, wherein the change rule is at least partially calculated such that the weights of the selected input variables are reduced as a function of values of the weights of unselected input variables.

3. (original) The method as claimed in claim 2, wherein the change rule is at least partially calculated such that the weights of the selected input variables are reduced by a value which is a function of a sum of squares of the weights of the unselected input variables.

4. (original) The method as claimed in claim 1, wherein the weights of the selected input variables are reduced at a predetermined reduction rate.

5. (original) The method as claimed in claim 1, wherein the map contains a number of map layers, starting with a first map layer and the weights are applied in the first map layer.

6. (original) The method as claimed in claim 1, further comprising setting at least one of the weights with a value below a threshold value to zero.

7. (original) The method as claimed in claim 1, wherein said mapping uses, for at least one of the input variables, a transfer function which has a low gradient for large-magnitude values of the at least one of the input variables.

8. (original) The method as claimed in claim 7, wherein said mapping contains a number of map layers, starting with a first map layer, and the transfer function is provided in close proximity to the first map layer.

9. (original) The method as claimed in claim 7, wherein the transfer function is a sigmoid transfer function.

10. (original) The method as claimed in claim 1, wherein said mapping is applied by a neural network.

11. (original) The method as claimed in claim 10, wherein the input variables are linked via synthetic neurons to the at least one output variable produced by said mapping.

12. (original) The method as claimed in claim 10, wherein the weights are weights in the neural network.

13. (original) The method as claimed in claim 1, further comprising iteratively repeating said comparing, calculating and mapping.

14. (original) The method as claimed in claim 1, wherein said calculating of the change rule produces identical maps for different sets of input variables.

15. (original) The method as claimed in claim 14, wherein the sets of input variables each contain identical input variables.

16. (original) The method as claimed in claim 15, wherein the sets of input variables are formed by a time series of respectively identical input variables.

17. (original) The method as claimed in claim 14, wherein said calculating comprises:

producing provisional change rules for maps of corresponding sets of input variables; and

calculating the change rule from mean values of the provisional change rules.

18. (original) The method as claimed in claim 14, wherein at least one of the maps, for at least one of the input variables, has a transfer function which has a low gradient for large-magnitude values of the at least one of the input variables.

19. (original) The method as claimed in claim 18, wherein at least one of the maps contains a number of map layers, starting with a first map layer, and the transfer function is provided in close proximity to the first map layer.

20. (original) The method as claimed in claim 18, wherein the transfer function is a sigmoid transfer function.

21. (original) The method as claimed in claim 14, wherein at least one of the maps is applied by a neural network.

22. (original) The method as claimed in claim 21, wherein the input variables are linked via synthetic neurons to the at least one output variable produced by the at least one of the maps.

23. (original) The method as claimed in claim 14, further comprising iteratively repeating said comparing, calculating and mapping.

24. (original) The method as claimed in claim 14, wherein the maps have at least one common map part.

25. (original) The method as claimed in claim 1, wherein the input variables contain speech features.

26. (currently amended) A system of speech processing, comprising:

a map unit to map speech input variables with different weights onto at least one output variable produced by said mapping;

comparison unit to compare the at least one output variable produced from said mapping with a desired output variable to be produced from said mapping to obtain a comparison result; and

a calculation unit to calculate a change rule for said mapping based on the comparison result and to reduce the weights of selected input variables having little influence on the at least one output variable to a value greater than zero.

27. (original) At least one computer readable medium storing at least one computer program for controlling a processor to perform a method comprising:

mapping input variables with different weights onto at least one output variable produced by said mapping;

comparing the at least one output variable produced from said mapping with a desired output variable to be produced from said mapping to obtain a comparison result; and

calculating a change rule for said mapping based on the comparison result and to reduce the weights of selected input variables having little influence on the at least one output variable.